

HMD Global makes, uses, tests, offers for sale, sells, and/or imports user equipment operating version 4.2 and higher of the Android Operating system (the "HMD Global Devices"). Each of the HMD Global Devices includes the features identified in this chart. The features and functionality identified in this chart cause the HMD Global Devices to practice the asserted claims of U.S. Patent No. 7,218,923 (the "923 patent"). The HMD Global Devices include any user equipment that HMD Global makes, uses, tests, offers for sale, sells, and/or imports that includes the Android Operating System v4.2 and higher. Such devices include, but are not limited to, the:

- Nokia 9 PureView
- Nokia 8.1
- Nokia 8 Sirocco
- Nokia 7.2
- Nokia 7.1
- Nokia 7 Plus
- Nokia 6.2
- Nokia 6.1 Plus
- Nokia 6.1
- Nokia 5.1 Plus
- Nokia 5.1
- Nokia 4.2
- Nokia 3.2
- Nokia 3.1 Plus
- Nokia 3.1
- Nokia 2.3
- Nokia 2.2
- Nokia 2.1
- Nokia 1 Plus
- Nokia 1
- Nokia C1

The above list is not intended to be exhaustive. The term HMD Global Device includes any device that HMD Global offered or offers which included Android Operating System v4.2 or higher. The HMD Global Devices directly infringe the asserted claims of the '923 patent.

This claim chart is meant to be illustrative for purposes of meeting Plaintiff's pleading obligations and should not be construed as binding or limiting.

References to source code in this Exhibit are exemplary and based off of the publicly available version of Android 4.3. CCE reserves the right to change such source code designations based upon its review of the source code for the HMD Global Devices.

Claim 1	
A method for controlling application programs in a communication terminal, the method comprising:	<p>Each HMD Global Device performs a method for controlling application programs in a communication terminal. For example, each HMD Global Device is a communication terminal that performs a method of controlling messaging applications that operate on it.</p> 

Claim 1	
<p>sending messages from an application program towards a communication network, the application program residing in a communication terminal;</p>	<p>Each HMD Global Device sends messages from an application program towards a communication network. For example, each HMD Global Device contains a SMS/MMS program that is pre-loaded on the device. An example of such a program is the Android “Messaging” app. The Android Messaging app comprises an executable version of source code that is stored on the HMD Global Device.</p> <p>The Android Messaging app is programmed to send messages towards the cellular network. For example, the Messaging app uses the <code>sendMessage()</code> method when the application attempts to transmit a text message. The application invokes either method <code>sendTextMessage()</code> or method <code>sendMultipartTextMessage()</code> when the application attempts to send a text message to the base station, for forwarding to the intended recipient.</p> <p>The <code>sendTextMessage()</code> and <code>sendTextMultipartMessage()</code> methods are methods of the <code>SmsManager</code>, which is a core part of the <code>Telephony</code> subsystem of the Android operating system. The Android documentation (available here: https://developer.android.com/reference/android/telephony/SmsManager.html) explains that the <code>SmsManager</code> “Manages SMS operations such as sending data, text, and pdu SMS messages.” More specifically, the <code>sendTextMessage()</code> method is used to “Send a text based SMS” and the <code>sendMultipartTextMessage()</code> method is used to “Send a multi-part text based SMS.”</p> <p>Alternatively, CCE contends that this claim element is met under the doctrine of equivalents because above-described features of the HMD Global Devices perform substantially the same function recited in this element, in substantially the same way to achieve substantially the same result. Any alleged differences between the above-described features and the recited element are insubstantial and immaterial to infringement.</p>

Claim 1	
diverting a message of the messages to a controlling entity residing in the communication terminal; and	<p>Each HMD Global Device diverts a message of the messages to a controlling entity residing in the communication terminal. For example, calling the <code>sendTextMessage()</code> or <code>sendMultipartTextMessage()</code> methods that are part of the <code>SMSManager</code> class results in the message being diverted by calling the <code>sendRawPDU()</code> method.</p> <p>The <code>sendRawPdu()</code> method performs various checks on the message it receives. A message that passes the checks it is sent to the controlling entity via the <code>checkDestination()</code> method. Messages that fail any of the checks are not delivered to the controlling entity. Therefore, the <code>sendRawPdu()</code> method is configured to divert one or more, but less than all, of the messages sent from the Messaging application to the controlling entity.</p> <p>Alternatively, CCE contends that this claim element is met under the doctrine of equivalents because above-described features of the HMD Global Devices perform substantially the same function recited in this element, in substantially the same way to achieve substantially the same result. Any alleged differences between the above-described features and the recited element are insubstantial and immaterial to infringement.</p>

Claim 1	
<p>based on the message, controlling in the controlling entity whether the application program behaves in a predetermined manner in the communication terminal, the controlling being performed before the message is transmitted from the communication terminal to the communication network.</p>	<p>The controlling entity controls, based on the message and before the message is transmitted to the communication network, whether the application program behaves in a predetermined manner in the communication terminal. The control occurs before the message is transmitted from the communication terminal to the communication network.</p> <p>The controlling entity calls the <code>SmsUsageMonitor.checkDestination()</code> method to determine if the message is a premium short code, which is a short phone number that may have additional user fees. If the message is not a premium short code, the message is sent to the communication network. Otherwise, the controlling entity checks if it was previously configured by the user to ALWAYS or NEVER send premium short codes, and if configured, the message is either sent or discarded, respectively.</p> <p>All other messages are sent to the controlling entity's <code>handleConfirmShortCode()</code> method. This method informs the user via a dialog that the application "would like to send a message to" the destination, and that "this will cause charges on your mobile account". The user can choose to allow or deny the message to be sent. The message that is sent from the application consists of two parts – the number to which it is being sent (i.e. its destination) and the body (i.e. the text, pictures etc.). In particular, a message (consisting of both destination number and text body), when sent towards the communication network via the <code>sendMultipartTextMessage()</code> method, is checked to confirm that the message contains a destination. If the destination is missing, the method raises an error. The controlling entity examines the destination (the number portion of the message) to determine whether to allow the message to be sent to the communication network, and thus the requirement that the controlling entity control based on the message is met. When the <code>Messages</code> application invokes <code>sendTextMessage()</code> or method <code>sendMultipartTextMessage()</code>, the predetermined manner of operation is to send messages to the communication network without further action from the user. The controlling entity controls whether the <code>Messages</code> application behaves in this manner. For example, if the controlling entity examines the message and determines that the message is for a premium SMS code, then it will take one of the above described actions. If the device was configured to NEVER send premium short codes and the message is for a premium SMS code, then the <code>Messages</code> application will not behave in the predetermined manner. Similarly, if the device was not previously configured to either ALWAYS or NEVER send premium short codes and the message is for a premium SMS code, then a dialog will be presented to the user and the <code>Messages</code> application will not behave in the predetermined manner. Therefore, the controlling entity controls based upon the destination portion of the message. This control action is also performed before the message is transmitted to the cellular network.</p> <p>Alternatively, CCE contends that this claim element is met under the doctrine of equivalents because above-described features of the HMD Global Devices perform substantially the same function recited in this element, in substantially the same way to achieve substantially the same result. Any alleged differences between the above-described features and the recited element are insubstantial and immaterial to infringement.</p>